

Climate-Related Extreme Events and Mortality Rates in Mexico

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Abstract

Climate projections in Mexico predict an increase between 1.4 and 2.5 oC. A consequence of this is a greater number of extreme events and their intensity. In Mexico, the economic costs generated by these events is significant (0.3% of GDP annually). Another impact is on human health. In this work we study the relationship between extreme events and their impact in mortality rates of diverse causes of death. We use a database of extreme events from the National Center for Disaster Prevention and mortality rates from the Health Secretariat. With these data we formulate a panel model for 2018 to 2022 for all municipalities in Mexico. We find that an extreme event increases in 15% the number of deaths of selected causes. Analyzing specific causes, we find an increase of 50% in mortality from mental illnesses, 70% in mortality by accidents, an 100% in respiratory and viral diseases. These results have relevant policy implications, specifically in highlighting the importance of disaster prevention by reducing the fiscal burden of these kinds of events in terms of health.

Keywords: Climate change, disasters, mortality, disaster prevention, Mexico